CLAIMS

What is claimed is:

1.   A computer system having a plurality of processors within a cell, the cell comprising:

5   a processor type register,

a management subprocessor,

an EEPROM, and

mapping hardware coupling the plurality of processors to the EEPROM;

wherein at system boot the management subprocessor reads the processor type

10   register to determine an appropriate boot image of a plurality of boot

images recorded within the EEPROM, and configures the mapping

hardware to map the appropriate boot image into boot address space of

processors of the cell.

2.   A method of providing firmware to a processor of a cell of a cellular

15   computer system comprising the steps:

reading a processor type register;

determining a processor instruction set architecture from information read

from the processor type register;

selecting a compatible boot image from a plurality of boot images, the

20   plurality of boot images contained within an EEPROM of the cell,

where each boot image has associated boot-image information; and

configuring mapping hardware to map the appropriate boot image of the

EEPROM into boot address space of the processor.

3.   The method of claim 2 wherein the steps of reading a processor type

25   register and selecting a compatible boot image are performed by a management

coprocessor of the cell.

4.   The method of claim 2 wherein the boot-image information comprises

version information, and where the step of selecting a compatible boot image selects a

most recent version unless a version flag is set.

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5.   The method of claim 2 wherein the boot-image information comprises version information, and where the step of selecting a compatible boot image selects a most recent version unless a condition exists selected from the group consisting of a version flag being set and the most recent version determined invalid.

5   6.   A method of updating firmware on a computer system, the computer system comprising at least one processor, the method comprising the steps:
       determining a discardable boot image, selected from the group consisting of a
              boot image incompatible with the processor and a least-recent boot
              image compatible with the processor;
10   erasing the discardable boot image from an EEPROM of the computer system;
              and
       writing a new boot image to the EEPROM.

       7.   The method of claim 6 wherein the processor is a processor on a cell of a cellular computer system, the cell comprises the processor coupled through mapping
15   hardware to the EEPROM, and wherein a recent boot image compatible with the processor is retained in the EEPROM when the discardable boot image is erased from the EEPROM.

       8.   The method of claim 7 wherein the computer system further comprises a management processor coupled to a processor type register, and wherein the
20   management processor reads the processor type register at system powerup to determine an appropriate boot image for the processor and configures the mapping hardware to present said appropriate boot image to the processor.

       9.   Apparatus for providing firmware to a processor of a cell of a cellular computer system comprising:
25   means for reading a processor type register of the cell;
       means for selecting an appropriate boot image from a plurality of boot images,
              the plurality of boot images contained within an EEPROM of the cell,
              where each boot image has associated boot-image information further
              comprising version information; and

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means for mapping the appropriate boot image into boot address space of the processor.